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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ASSOUAD, PATRICK J

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,801

Applicant(s)

MERCKE ET AL.

Examiner

Patrick J Assouad

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 24, 25, 38 and 46 is/are rejected.
- 7) ☒ Claim(s) 3-23, 26-37, 39-45 and 47-51 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restriction

1. Applicant's election with traverse of Group I in Paper No. 6 is acknowledged. Applicant has amended numerous independent claims to make them dependent claims, and added new dependent claims 38-51. The requirement for restriction is withdrawn.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

3. It is unclear whether the UK Patent Application cited on pg. 9 of the instant Specification is being incorporated by reference. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material

Art Unit: 2857

incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

Claim Objections

4. Claims 38 and 46-49 are objected to because of the following informalities: they all recite "...of the or each parameter..". Claim 39 is objected to because of the following informalities: we see "suppled" in line 2. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

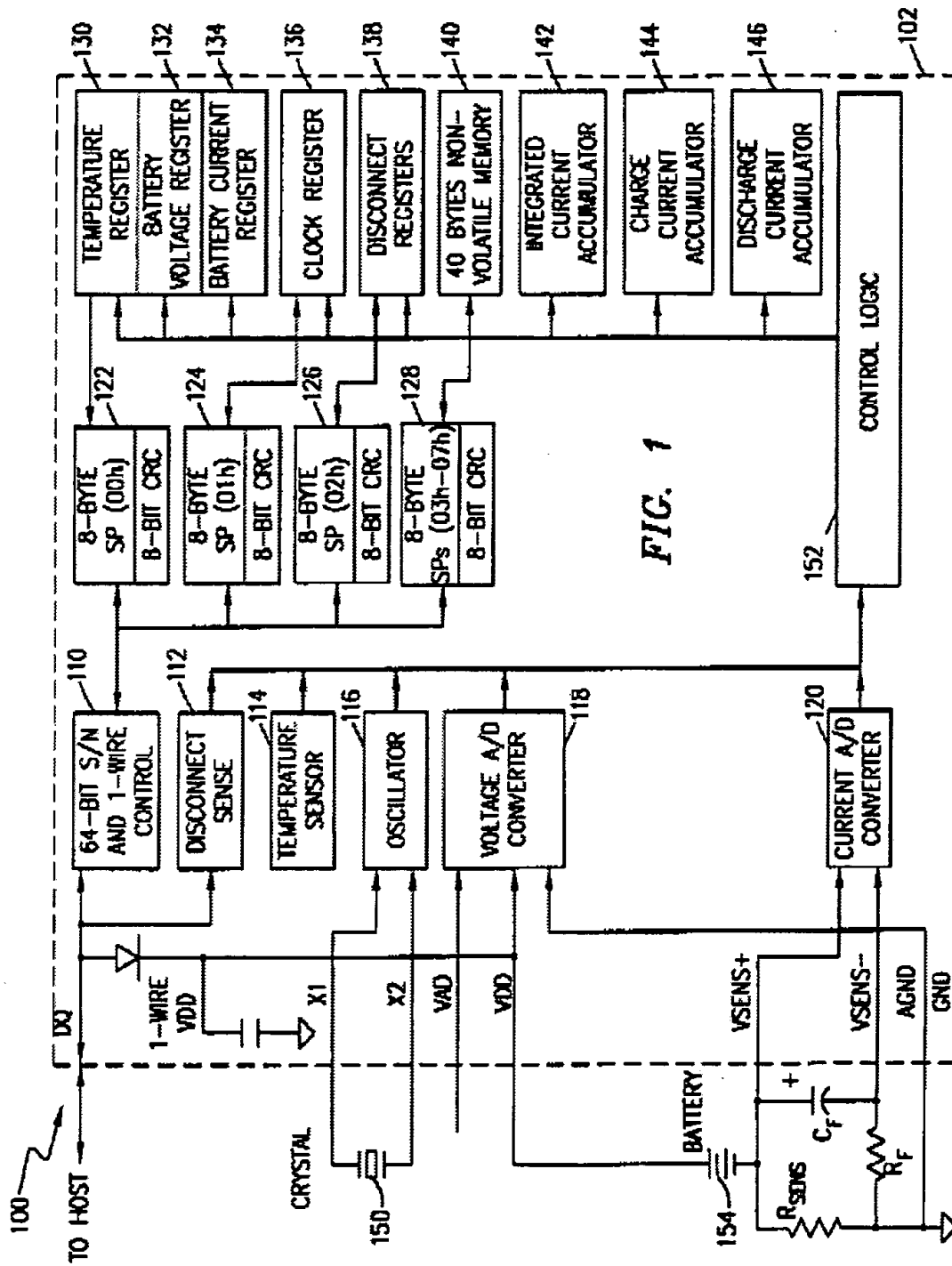
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 24, 38 and 46 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by **Downs et al.** ('809 B1).

Art Unit: 2857

7. **Downs et al.** disclose a method and system for monitoring parameters of a rechargeable power supply. Fig. 1 of **Downs et al.** is reproduced below. From col. 2 of **Downs et al.**:

As depicted in FIG. 1, battery monitoring circuitry 102 includes a 64-Bit serial number and one-wire control circuitry 110; disconnect sense circuitry 112; temperature sensor 114; an oscillator, e.g. oscillatory circuitry 116; a voltage analog-to-digital converter 118; a current analog-to-digital converter 120; scratch-pad memories 122, 124, 126 and 128, each having an 8-bit CRC; a temperature register 130; battery voltage register 132; battery current register 134; clock register 136; disconnect registers 138; non-volatile memory 140; an integrated current accumulator 142; a charge current accumulator 144; a discharge current accumulator 146; and control logical circuitry 152.



Art Unit: 2857

8. As per independent claims 1 and 24, and as can be seen from Fig. 1 reproduced above and its description by **Downs et al.**, we clearly see the claimed A/D, the logic unit, and the output register. The claimed processor is associated with the host of **Downs et al.**

9. As per dependent claims 38 and 46 which refer to a "digital signal stream", and the "logic unit adapted for updating the value of the or each parameter contained in the register as required in response to the digital signal stream", the Examiner interprets this as nothing more than overwriting a previously stored parameter with a newly acquired parameter in response to a clock signal or interrupt or other signal initiated by the control logic of **Downs et al.**

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Downs et al.** as applied to claims 1 and 24 above, and further in view of **Nolan et al.** ('733).

Art Unit: 2857

12. The difference between the instant claimed invention and that of **Downs et al.** lies in the means for setting a threshold value for said parameter, and for sending a signal to the processor when the parameter value contained in the output register reaches the threshold value.

13. **Nolan et al.** teach a microcontroller with analog front-end for providing intelligent battery management. In col. 2, beginning at line 59, they specifically teach that:

Each charge controller may also be used as a level detector to determine when an input signal exceeds or falls below a digitally programmable threshold level. The programmable threshold level is digitally set by programming the desired threshold voltage at a first input of the comparator via the DAC, whereby the other input of the comparator receives an analog input signal such as a voltage indicative of battery current. The level detector functions to set a flag and provide an interrupt to the microprocessor when the analog input signal exceeds (or alternately falls below) the programmable threshold voltage. Accordingly, this interrupt may be used to "wake-up" the microprocessor from a sleep mode thereby providing a digitally programmable threshold for waking-up the microprocessor. [emphasis added]

14. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the threshold teaching of **Nolan et al.** into the method of **Downs et al.** for monitoring operating parameters of a rechargeable power supply because such a combination allows a system to accommodate interchangeable batteries with different power levels and to notify a user when a battery approaches a serious or unfavorable charge condition.

Allowable Subject Matter

15. Claims 3-23, 26-37, 39-45, and 47-51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These dependent claims are allowable over the prior art of record because the prior art of record does not suggest or disclose the claimed combination of system elements or method steps, most particularly the claimed "digital signal stream, corresponding to successive measured values..." or the storage of the "maximum [or minimum] value of the parameter suppl[i]ed over a period and the average value of the parameter supplied over a period" (claims 39, 41) or "the maximum [or minimum] value of the parameter supplied over a period since the register was last accessed by the processor" (claims 43 and 44) or "the average value of the parameter supplied over a fixed period" (claim 45).

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the attached PTO-892.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Assouad whose telephone number is 703-305-3811. The examiner can normally be reached on Tuesday-Friday, 6:30am-5:00pm.

Art Unit: 2857

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

A handwritten signature in black ink, appearing to read 'Patrick J. Assouad', with a stylized flourish at the end.

Patrick J Assouad
Primary Examiner
Art Unit 2857

pja